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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/785,208	02/20/2001	Masahiro Nagakura	1344.1056/JDH	3955

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EXAMINER	
STEVENS, THOMAS H	

ART UNIT	PAPER NUMBER
2123	

DATE MAILED: 08/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/785,208	NAGAKURA, MASAHIRO	
	Examiner	Art Unit	
	Thomas H. Stevens	2123	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on *20 February 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *20 February 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. 2000-278734.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-12 were examined.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

3. Claims 4-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The word in conjunction with the word "means" is unclear.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-6,9, and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Beauchamp et al. (U.S. Patent 6,434,441 (2002)). Beauchamp et al. teaches a method for designing an article for manufacture (abstract).

Claim 1. A computer-readable recording medium recorded with a numerical analysis program for realizing on a computer (column 4, lines 10-27 and column 8, lines 36-53): a master model creating function for creating a master model representing a shape of an object (abstract: lines 9-12), a load region data creating function for creating load region data for specifying a load applying region in said master model (column 7, lines 59-67 with figure 5), and an analytic model generating function for generating an analytic model where the load region data created by said load region data creating function is added to the master model created by said master model creating function (column 7, lines 17-66).

Claim 2. A computer-readable recording medium recorded with a numerical analysis program according to claim 1(column 4, lines 10-27 and column 8, lines 36-53; column 7, lines 17-66), wherein said numerical analysis program further comprises a load attribute setting function for setting up a load attribute for the load applying region specified by said load region data, and said analytic model generating function, when a load attribute has been set up by said load attribute setting function, generates an analytic model with the load attribute added.

Claim 3. A computer-readable recording medium recorded with a numerical analysis program according to claim 1, (column 4, lines 10-27 and column 8, lines 36-53; column 7, lines 17-66) wherein said load region data creating function sets up the load applying region by projecting an optional shape surface onto the master model.

Claim 4. A computer-readable recording medium recorded with a numerical analysis program according to claim 3 (column 4, lines 10-27 and column 8, lines 36-53; column 7, lines 17-66), wherein said load region data creating function designates a projection direction of the optional shape surface with respect to said master model by a vector.

Claim 5. A numerical analysis system comprising (column 8, line 52): master model creating means for creating a master model representing a shape of an object, load region data creating means for creating load region data for specifying a load applying region in said master model, and analytic model generating means for generating an analytic model where the load region data created by said load region data creating means is added to the master model created by said master model creating means (column 4, lines 10-27 and column 8, lines 36-53; column 7, lines 17-66).

Claim 6. A numerical analysis system according to claim 5 (column 4, lines 10-27 and column 8, lines 36-53; column 7, lines 17-66;column 8, line 52), wherein said numerical analysis system further comprises load attribute setting means for setting up a load attribute for the load applying region specified by said load region data, and said analytic model generating means, when a load attribute has been set up by said load attribute setting means, generates an analytic model with the load attribute added.

Claim 9. A numerical analysis method comprising (column 4, lines 10-27 and column 8, lines 36-53; column 7, lines 17-66): a master model-creating step for creating a master model representing a shape of an object, a load region data creating step for creating load region data for specifying a load applying region in said master model, and an analytic model generating step for generating an analytic model where the load region data created by said load region data creating step is added to the master model created by said master model creating step.

Claim 10. A numerical analysis method according to claim 9, (column 4, lines 10-27 and column 8, lines 36-53; column 7, lines 17-66) wherein said numerical analysis method further comprises a load attribute setting step for setting up a load attribute for the load applying region specified by said load region data, and said analytic model generating step, when a load attribute has been set up by said load attribute setting step, generates an analytic model with the load attribute added.

Claim Rejections - 35 USC § 103

6. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. The following is a quotation of 35 U.S.C.103 (a), which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 7,8,11, and 12 were rejected under 35 U.S.C. 103 (a) as unpatentable by Beauchamp et al. (U.S. Patent 6,434,441 (2002)), in view of Sebastian (U.S. Patent 5,552,995 (1996)). Beauchamp et al. teaches a method for designing an article for manufacture (abstract); but doesn't teach interconnecting primitive CAD objects (e.g., wall, supports, etc.).

At the time the invention, it would have been obvious to one of ordinary skill in the art to use Sebastian to modify Beauchamp since it would be advantageous for the CAD program to have object interconnection capabilities.

Claim 7. A numerical analysis system according to claim 5, (column 4, lines 10-27 and column 8, lines 36-53; column 7, lines 17-66;column 8, line 52) wherein said load region data creating means sets up the load applying region by projecting an optional shape surface onto the master model (Sebastian: column 10, lines 8-21 and column 12, line 21-31).

Claim 8. A numerical analysis system according to claim 7, (column 4, lines 10-27 and column 8, lines 36-53; column 7, lines 17-66;column 8, line 52) wherein said load region data creating means designates a projection direction of the optional shape surface with respect to said master model by a vector (Sebastian: column 10, lines 8-21 and column 12, line 21-31).

Claim 11. A numerical analysis method according to claim 9, (column 4, lines 10-27 and column 8, lines 36-53; column 7, lines 17-66) wherein said load region data creating step sets up the load applying region by projecting an optional shape surface onto the master model (Sebastian: column 10, lines 8-21 and column 12, line 21-31).

Claim 12. A numerical analysis method according to claim 11, (column 4, lines 10-27 and column 8, lines 36-53; column 7, lines 17-66;column 8, line 52) wherein said load region data creating step designates a projection direction of the optional shape surface with respect to said master model by a vector (Sebastian: column 10, lines 8-21 and column 12, line 21-31).

Correspondence Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mr. Tom Stevens whose telephone number is (703) 305-0365, Monday-Friday (8:00 am- 4:30 pm) or contact Supervisor Mr. Kevin Teska at (703) 305-9704. The fax number for the group is 703-872-9306.

Any inquires of general nature or relating to the status of this application should be directed to the Group receptionist whose phone number is (703) 305-3900.

August 19, 2004

THS

KEVIN J. TESKA
SUPERVISORY
PATENT EXAMINER